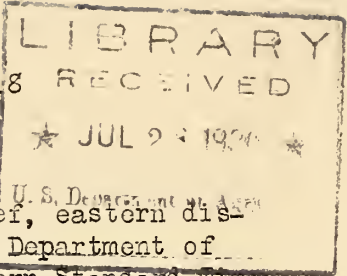


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Tuesday July 1, 1930



A series of radio talks by W. R. M. Wharton, chief, eastern district, Food, Drug and Insecticide Administration, U. S. Department of Agriculture, delivered Tuesday mornings at 10 a.m. Eastern Standard Time through WJZ., New York and the following other stations associated with the National Broadcasting Company: KWK, St. Louis; WREN, Kansas City, KFAB, Lincoln; WRC, Washington; WBZA, Boston; KSTP, St. Paul; WSM, Nashville; WAPI, Birmingham, WJAX, Jacksonville; WPTF, Raleigh; WRVA, Richmond.

Good morning, my radio friends. Your government representative is again with you to tell you how your foods and drugs are safe-guarded through the enforcement of the Federal food and drugs act, and to tell you how to read food and drug labels.

I am offering to send to all who write for them, free copies of all my read the label information broadcasts to date. If you wish to become intelligent label readers, and therefore discriminating buyers, you should secure this information.

My story today will be about the sale of diseased poultry. There are consumed in the United States each year something under one billion carcasses of dressed poultry. The product which goes to the table trade, generally is selected stock of superior quality; but poultry is subject to a wide variety of diseases, among which are: pneumonia, diphtheria, Cholera, Tuberculosis, and Tumors, including carcinoma. Naturally, when selecting the superior fowls for the table trade, each poultry dressing plant has left over, what is known as Culls. Now, I am going to tell you what happened when a poultry canning establishment tried to buy cull poultry to be used in canned chicken products.

A few years back, your federal food and drug inspectors found that a certain large chicken-canning establishment had bought and had received a large quantity of this cull poultry, composed, my friends, largely of diseased poultry, of poultry reeking with tuberculosis and with other serious fowl diseases, and containing some birds evidently which had died of disease before slaughter, as well as bruised and unslightly carcasses. This poultry, often emaciated with disease to the point of skin and bones, was destined to be made up into canned "Chicken a la King" and other supposed canned chicken delicacies, later to go to the grocery shelves and finally to your tables.

Your federal food and drug inspectors, you may be sure, were not slow to invoke the terms of the Federal Food and drugs act to prevent this unfit material from going into use for the manufacture of a canned food product. The goods were seized and large quantities destroyed. In all, during a very short period of time, 256,637 pounds of unfit poultry was seized for confiscation in the Eastern District alone, and similar actions were taken in other parts of the country.

Soon after this happened, a meeting of commercial interests was held, which was attended by poultry packers, shippers, and city distributors from widely separated territories. And this conference adopted resolutions condemning the receipt of inedible poultry by poultry killing

plants, and condemning the shipment of inedible poultry. This in effect represented the attitude of the poultry trade itself, concerning the sale of such products of food; and that attitude, together with the knowledge that seizure and prosecution is bound to follow, has had the effect of very largely curing this situation. Moreover, the United States Department of Agriculture, through its Bureau of Agricultural Economics, offered to furnish to chicken canning establishments, regular inspection service at plants, and practically all of the chicken canning plants have accepted that service; so that now canned chicken products contain only chicken material which has come from inspected birds found free from disease. These are the results, briefly told, of the enforcement of the Federal food and drugs act as applied to this particular problem, and this illustrates, my radio friends, how the enforcement of this law protects your food and drugs supply.

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Now for my read the label information: My subject today is "Food Flavors". Flavors in foods play a very important part in our diet, since they improve the taste of food, and taste stimulates the flow of the appetite gastric juice and increases its quantity. Consequently, food flavors take an important place in the family kitchen. Food flavors go to your homes, my radio friends, in several forms; (1) As so-called Extracts, which consist of the sapid and odorous principles derived from aromatic plants or parts of plants, and from fruits or flowers of plants, dissolved in a solution of alcohol with or without glycerine. (2) You find them as oily products, made by mixing the concentrated flavoring principles with bland and tasteless oils. (3) You find them as emulsions, wherein the concentrated flavoring material has been mixed with bile and gums, and emulsified. They sometimes also contain glycerine. (4) You find watery or syrupy preparations containing parts of the concentrated flavoring materials, or imitation of flavoring materials. (5) You find powdered, sugary preparations in which the concentrated flavoring material has been incorporated; and finally (6) the essential oils or principal flavoring elements are sold to you as such.

Now, my friends, having in mind what I have already said, label reading of flavoring preparations becomes important, don't you think, if you are to determine that you are getting exactly what you want? Indeed, let me tell you that you can be misled more easily in buying food flavors than any other class of food products; and it takes a very nice and a very exact sense of understanding always to make the proper evaluation of commercial food flavors.

Now another way to put this proposition, is to divide these products into classes along somewhat different lines, as follows: (1) Flavoring Extracts. These are proper strength alcoholic preparations of flavoring materials. (2) Terpeneless Extracts; these are made from the concentrated flavoring materials from which certain constituents have been removed, thus permitting of the manufacture of an extract with less alcohol than would be required otherwise. (3) Imitations Extracts; these are solutions of synthetic products which produce a flavor similar to the genuine. (4) Compound Extracts; these are mixtures of genuine extracts with imitation flavors. (5) Powdery substances, such as powdered sugar, in which flavoring material has been incorporated; and (6) Essential Oils, or the products themselves from which genuine extracts are made.

A standard extract must contain a definite percentage of the appropriate essential oil or other basic material; and you may assume that when a product is labeled an "Extract" that it is a standard product with the proper amount of flavoring material in it. It is invariably made with alcohol as the solvent and it may, or may not contain glycerine. On the other hand, if you find a product labeled as a Terpeneless Extract, as is the case with certain flavors made from the various citrus fruits only, you will know that the product is a dilute alcoholic solution of an essential oil from which the terpenes have been eliminated before manufacture into an extract. These extracts are required to meet their own particular standard of purity and strength; and for the purposes for which they are best fitted, they are desirable products.

The term "Flavor" often appears on labels of preparations and this generally is accompanied by the word "Non-alcoholic". When this word appears either alone or in conjunction with the word "extract" it means an alcoholic extract. On the other hand when it appears in conjunction with the term "non-alcoholic" it defines preparations made with solvents other than alcohol. These may be liquid solvents, oils, glycerine or other products. You must not misunderstand the term "non-alcoholic" since this expression, when used on labels, is descriptive of the solvent used in making the preparation and has nothing to do with the quality of the finished article. You need ascribe neither superiority to a product labeled "non-alcoholic" nor inferiority; though in general for most flavoring purposes the alcoholic extracts are considered by most housewives as producing superior results.

We have a class of flavoring preparations known as "Emulsions". Labels sometimes declare products to be emulsions, but such products need not necessarily be so labeled, since if they are called non-alcoholic flavors the appropriate basic information is supplied to you. On the labels of such products occasionally the names of gums or other emulsifying agents used are declared.

You will find flavoring materials labeled as "Imitations", and, as I have already said, the flavoring principles used in these preparations resemble the true flavors, but the flavoring principles consist generally of imitation or synthetic materials made up into various forms with the use of alcohol, or sugar syrup, or mixtures of oils, or water solutions. For example, Vanilla Extract is often imitated. Products such as Vanillin, made synthetically from coal tar, or derived by a chemical process from oil of cloves, and coumarin, a synthetic coal tar product, are dissolved in a proper menstruum in proper proportions and amounts, with the result that a flavoring material similar to Vanilla Extract results. Such a product would be the color of water if it were not artificially colored, and caramel or burnt sugar color is added to give it the proper color. Such products must be labeled as imitation, ingredients must be stated on the label, and, if artificially colored, a statement to that effect must be made on the label.

Again, Lemon Extract may be imitated by preparing a solution from the flavoring principles of a grass grown in the East Indies known as lemon grass. This material is called citral, and such an imitation extract must be labeled as an imitation. The fact that it is made from citral must be stated, and, if it is colored, this fact must be shown on the label. Imita-

tion flavors are wholesome products and they serve their own purposes well, but they can be made much more cheaply than genuine flavors and consequently you should be able to buy them at much reduced prices. You must read labels to determine whether you are getting a compound product, that is, a mixture of a real extract with materials which constitute an imitation. For example, a product labeled "Vanillin, coumarin and vanilla extract" should owe its flavoring character predominatingly to the synthetics, vanillin and coumarin, whereas, if labeled "Vanilla, vanillin and coumarin extract," it should have a predominating flavor of true vanilla. In other words, if Vanilla Extract is stated first, you will know the flavoring principle is derived in the larger part from Vanilla Extract.

If you buy powdery flavoring substances, read the label to determine the nature of the product. It may be ground vanilla beans incorporated in powdered sugar; or it may be a mixture of powdered sugar, or either vanillin or coumarin, or both, which are crystalline substances. If you for any of your flavoring purposes use essential oils, read the label to determine whether they are represented to be pure essential oils or mixed with oils of no flavoring value.

There is still another class of preparations which are called "True Fruit Flavors". There are some fruits, especially the small fruits, from which it is difficult to secrete the concentrated flavoring principle. Hence for a long time strawberry flavoring material, raspberry flavoring material, and banana flavoring material were made of substances not originating with the fruits at all but wholly in imitation of the flavoring of these fruits. These products were, as you perhaps remember, poor imitations of the real flavor of the genuine fruits. Some of these are still sold. Lately, however, new processes have been developed for the concentration of the general flavoring from these fruits and these concentrate preparations are being made up into liquid household preparations which are sold to you as true fruit flavors.

Sometimes flavoring labels declare products superior to the product of the legal standard in quality and strength. My advice is, not to pay more money for such a product, for a product of standard quality and strength will meet all your requirements for flavoring purposes. Again, you may find on labels a continuation of the old practice of multiplying the letter "X". In the days before food laws were enforced, it became a practice in the flavoring material industries, for certain manufacturers to refer to their various quality of products as double X, triple X, etc., as representing varying degrees of strength; and I have seen sometimes as many as six or seven X's in a row on containers holding flavoring material. These X's do not mean anything, so whenever you see them you may disregard them.

My friends, allow me to urge you to watch carefully and compare the quantity of contents statement on flavoring material labels. There are some flavoring extract labels on which a declaration of the volume is made in terms of drams, instead of fluid ounces. Everyone knows that 16 fluid ounces make a pint; but no one is expected to know how many drams make a pint, and so when a manufacturer puts on a label that his product contains, for example, six drams, - and I have recently seen several extract labels so marked - it is my opinion that he wishes to keep from the buyer the knowledge as to just how much material is in the product. Six drams, my friends, is only $3/4$'s of one fluid ounce, for each dram is only $1/8$ of a fluid ounce. Consequently, if you buy a bottle of flavoring extract labeled as 6 drams, you will be getting less than one-half of the standard amount usually sold, which is 2 ounces. And, moreover, at the present time very small

packages, that is, packages containing less than one fluid ounce, are not actually required to be marked with the quantity of contents. If the quantity of contents is declared inconspicuously, or if any essential statement on the label appears to have been printed in such fashion as to indicate an attempt to hide it, you will be justified in concluding that someone is trying to deceive you.

Now, my friends, let me urge you to put into practice, - put into practical use, the read the label information that I have been giving you for these many weeks. You ought to have all of this information, information on Baking Powder, on Cheese, on Tea, Vinegar, Meat, and many other subjects that I have covered, on file for reference and for every-day use; and every housewife in the nation certainly should have, and should study carefully, my information sheets on Vitamins. All you have to do is to write a postal card to me, asking for this information. It is ready to be mailed you, without charge. Won't you take this step in your own interest? Write to W.R.M. Wharton, U. S. Department of Agriculture, 201 Varick Street, New York City. I will be with you again next week at this hour.

